

Stated Meeting, April 5th, 1878.

Present, 16 members.

Vice-President, Mr. E. K. PRICE, in the chair.

Letters of acknowledgment were received from U. S. Naval Observatory, March 20 (100 and list); Leo Lesquerieux, March 16 (100 and list); and the Chicago Historical Society, March 15 (100 and list).

A letter acknowledging the receipt of boxes (4) of transmissions for foreign distribution was received from the Smithsonian Institution.

Letters of envoy were received from the Royal Institute, London, March 12; Mr. C. A. Kesselmeyer, March 17; Dr. T. Sterry Hunt, March 20; Mr. I. B. Pearce (Geol. Sur., Pa.), March 18; and Mr. W. B. Taylor, Washington, D. C., March 28, 1878.

A letter applying for the Coal Slack prize was received from Mr. Benj. F. Bee, dated Harwich, Mass., March 23.

A circular letter was received from the University of Pavia.

Donations for the Library were received from the R. Acad., Turin; Geographical Society, and Annales des Mines, Revue Politique; and Commercial Geographical Society, Bordeaux; the editors of the Revista Euskara at Pamplona; R. Astronomical Society and London Nature; Dr. Fred. Bateman, Norwich, England; Mr. C. A. Kesselmeyer, Leipsic; Museum of Comp. Zool., Cambridge, Mass.; Mr. Samuel H. Scudder, Boston; D. T. S. Hunt, of Boston; Free Pub. Lib. New Bedford; Am. J. S. and A.; Prof. W. A. Norton, New Haven; Franklin Institute, College of Pharmacy, Penn Monthly, Medical News, American Journal of Medical Sciences; Board of Com. of the Second Geological Survey of Pennsylvania; Chief of U. S. Engineers; Mr. W. B. Taylor, Washington; Dr. Robt. Peter, Lexington, Ky., and Ministerio de Fomento, Mexico.

An offer to sell to the Society a complete set of the Phil.

Trans., R. S., London, 164 Vols. in calf, for \$1500,* was made by Mr. P. Munzinger, 1908 Rittenhouse Square.

Mr. Cope made some remarks upon North American species of extinct Rhinocerotid mammals, and exhibited specimens to illustrate their different characters.

Mr. Cope then spoke of the extinct vertebrata of the Permian System of the United States.

A second communication was received from Dr. Gatschet of Geneva, "On the Timucua Language.

Prof. Frazer communicated to the Society a set of carefully calculated tables for common use, converting the weights and measurements of the metric system into those commonly employed in the United States, and *vice versa*.

Prof. Frazer promised to give at a future meeting the full details of a microscopic examination of the marks made by the phonograph on tin foil.

Prof. Sadtler communicated his remarks on gas analyses alluded to at the last meeting.

Prof. Sadtler communicated a paper by Dr. John Marshall, entitled "A study of some of the derivations of Mono- and Dichlor-Salicylic Acid," as a "Contribution from the Laboratory of the University of Pennsylvania, No. XIII."

Mr. Britton called attention to the forms in which Carbon existed in iron and steel.

He referred to the two well-known, the combined and graphitic, and also to a third form or semi-graphitic. The latter he had found in poorly puddled metal, and also in Siemens-Martin steel, and more recently in Bessemer steel rails that had not given satisfaction, and in some pig iron produced when the furnace was working abnormally. The semi-graphitic form could be separated and collected by treating the metal containing it with dilute sulphuric or hydrochloric acid without the application of much heat until all the iron became dissolved, and then filtering the solution; it would be on the filter, but in appearance not so black as the graphitic; would have a reddish tinge, that, upon ignition would leave the ash of the paper white. By boiling from ten to thirty minutes all of it appears to dissolve. Mr. Britton illustrated the behavior of this third form of carbon by producing several glass tubes, in some of which it was not dissolved in the acids mentioned, and in others scarcely any of it was observable after being boiled for twenty minutes. The existence of more than two forms of carbon

* Mr. M. paid \$2000 for this set.

in iron and steel was observed by him several years ago, but he believed that it was not generally credited. It was a source of error in determining carbon by the colorimetric method. He proposed to make further investigation by analyses, and to communicate his results.

The Committee on the Michaux Legacy reported that they had purchased and presented to the Fairmount Park Commission, for Horticultural Library, the *North American Sylva*, by Michaux and Nuttall.

Prof. Cope moved the appointment of a committee to examine and report on the merits of his paper, reported on adversely to its publication at a previous meeting. After discussion of the motion by Messrs. Cope, Frazer, Briggs and LeConte, the consideration of the subject further was, on motion of Dr. LeConte, postponed to the next meeting.

Pending nominations Nos. 852 to 856 were read and the meeting was adjourned.

Stated Meeting, April 19th, 1878.

Present, 15 members.

Vice-President, Mr. E. K. PRICE, in the chair.

A letter acknowledging the receipt of Nos. 96, 97, 98, was received from the Royal Academy at Amsterdam, dated Oct. 20, 1877.

Letters of envoy were received from the same, Nov. 13, 1877; the Royal Zoological Society, Amsterdam, Feb. 1, 1878; the Society at Marburg, Jan. 1; and the Royal Observatory at Bruxelles, Oct. 1, 1877.

A letter was received from the Fairmount Park Commissioners acknowledging the gift of the Michaux and Nuttall *Flora Americana*, for the Park Library, dated April 13, 1878.

Donations for the Library were received from the Academies at St. Petersburg, Berlin, Amsterdam, Bruxelles, Rome and Philadelphia; the Zoological Society at Amsterdam; the German Geological and Horticultural Societies in Berlin;